

REMARKS/ARGUMENTS

Claims 2, 5, 38 and 19 have been amended to overcome certain informalities as to Claims 2, 5 and 38 and to correct the improper dependency of Claim 19. The errors are regretted.

Turning to the art rejections, Claims 1-3, 10, 11, 34-36, 43 and 44 stand rejected as anticipated by Halkyard (U.S. Patent 5,683,205). Claims 1 and 34, the only independent claims deemed anticipated by Halkyard have been amended to recite that the gripping relationship between the centralizer and the upset prevents any relative movement between the centralizer and the upset. Support for this limitation can be found, inter alia, on page 16, line 7-11, the drawings and the repeated references to the fact that the centralizer and upset are shrink fitted to one another and that the centralizer is substantially solid, see page 8, lines 7-9. Furthermore, as pointed out on page 15, lines 12-21 heat shrinking is less expensive than machining out of a single piece of material and just as strong and it is simpler and much more cost effective to machine the keel joint with upset and centralizer separately and then heat shrink fit the centralizer onto the upset. The cited lines thus equate the combination of a heat shrink fitted upset and centralizer with one that was machined out of a single piece of material. In any event, as the Examiner is doubtless aware, heat shrink fitting is a common method to rigidly secure parts of various machines and apparatuses together to prevent any relative movement between the parts so affixed.

As thus amended, it is respectfully submitted that Claims 1-34 are clearly patentable over Halkyard. At the outset it should be pointed out that while the Examiner has pointed to shouldered ring 74 as being the equivalent of the centralizer called for in

Applicants' claims, in point of fact, Claim 74 is a centralizer only in the sense, as pointed out in column 3, lines 34-38, only in the sense that it serves to maintain centralization of pipe portion 62 within sleeve member 68. In other words, to the extent that any portion of the structure shown in Fig. 5 of Halkyard is a centralizer remotely resembling Applicants' system, it is sleeve member 68. As can be seen from Fig. 5, the OD of shouldered ring 74 is considerably less than the OD of sleeve 68 and accordingly could not possibly act to centralize the system shown in Fig. 5 with respect to a socket or the like in which the structure shown in Fig. 5 was fitted. That function could only be accomplished by sleeve 68 given the relative OD's of sleeve 68 and shouldered ring 74. Thus, while shouldered ring 74 is referred to as a centralizer, it is acting as a centralizer in a much different way and for a different purpose than Applicants' centralizer since in Applicants' system, the centralizer is essentially the largest diameter portion of the centralizer system whereas in the Halkyard structure the sleeve 62 is the largest diameter structure in the system shown in Fig. 5.

Furthermore, as now set forth in Claims 1 and 34, Halkyard does not disclose or suggest that the shouldered ring 74 and the sleeve 68 are prevented from any relative axial or radial movement with respect to one another. Indeed, as pointed out in column 3, lines 40 *et seq* there is a loose fit provided between the end 68b and shouldered ring 74 which precludes the notion that there is no relative movement between shouldered ring 74 and sleeve 68. This is further enforced by the cited wording which points out that some relative rotational movement about the longitudinal axis of pipe sections 62 as well as some relative axial movement between end 68b and tension pipe portion 62 is afforded by the loose fitted end 68b. Indeed, it is the thrust of the Halkyard invention to utilize a

sleeve as opposed to Applicants' substantially solid metallic centralizer since as pointed out in column 4, lines 14 *et seq* the purpose of the external sleeve is to receive bending stresses intermediate at its ends at the constraint opening and to distribute curvature resulting therefrom to space point or areas of the pipes at the ends of the sleeve member. Such a goal is inconsistent with Applicants' centralizer system wherein the centralizer is in gripping engagement with the upset and forms a substantially solid structure. As pointed out in column 4, lines 32-34 of Halkyard, the pipe is allowed deflection within the sleeve member and between the ring means at opposite ends of the sleeve member. Those teachings of Halkyard are directly contrary to Applicants' claimed centralizer system. Accordingly, it is respectfully submitted that Claims 1 and 34 are not anticipated nor rendered obvious by Halkyard.

With respect to Claims 2, 3, 10, 11, 36, 43 and 44, since those claims further limit Claims 1 or 34, and since Claims 1 and 34 are clearly patentable over Halkyard, it is respectfully submitted that those claims are likewise patentable over Halkyard.

Claims 1-3, 10, 11, 18-20, 29, 32, 33-36, 43 and 44 stand rejected as anticipated by Finn et al. (U.S. Patent 6,648,074). This rejection is also respectfully traversed. As is the case with respect to Claims 1 and 34, independent Claim 18 has been amended to recite that the metallic centralizer is in gripping relationship with the upset portion such that the centralizer and upset portion are prevented from any relative movement. As in the case of Halkyard, this limitation renders independent Claims 1, 18 and 34 clearly patentable over Finn et al. With respect to the rejection of Claims 1, 18 and 34, the Examiner has pointed particularly to Figure 11, of Finn. Figure 11 of Finn et al, clearly does not show a system wherein there is a metallic centralizer in gripping engagement

with an upset portion on a metallic pipe whereby the centralizer and the upset portion are prevented from any relative axial or radial movement. As pointed out in column 3, lines 55-62, and in basically describing the apparatus of Finn shown in Figs. 9-11, there is a keel joint having an elongated guide, the guide having a vertical bore therethrough. A shaft is fitted within the bore of the guide, the shaft having a vertical bore therethrough for passage of one of the risers therethrough. A wear insert is associated with the shaft, the wear insert having an outer surface for slidably engaging a portion of the keel joint. As noted in column 10, lines 44 *et seq*, the ball wear insert 94 is attached to the outer circumferential surface of flanges 92 and has an outer surface for slidably engaging a portion of the keel joint 22. As noted further in the cited lines, the convex outer shape of the ball where insert 94 permits a small degree of rotation of shaft 86 within guide 82. In any event, ball insert 94 clearly permits movement of some degree between sleeve 108 which the Examiner has equated to the centralizer and the metallic upset 92. Indeed, if this were not the case there would be no reason for ball wear insert 94, the avowed use of which is to permit a degree of rotation of shaft 86 within the guide 82. In effect, ball insert 94 is, as Finn clearly teaches, a ball design to prevent relative movement between sleeve 108 and the ball insert 94 and hence flanges 92 which the Examiner has equated to Applicants' claimed metallic upset. There is no question from the teachings of Finn et al, that the purpose of the ball wear insert 94 is to permit relative movement between ball wear insert 94 and sleeve 108. This is clearly set forth in column 10, lines 23 *et seq* where it is pointed out that the keel joint segregates the function of rotation of the risers within the keel in response to bending moments on the risers and wear in response to relative motion between the risers and the hull and that this configuration allows the use

of specific materials to minimize wear and galling at the ball joint while using standard vessel construction materials for the sleeve in which a certain amount of wear can be designed for and tolerated. Ball wear insert 94 in combination with flanges 92 is nothing more than, as described by Finn et al in line 30, a "ball joint" and as the Examiner well knows a ball joint is specifically designed to allow relative movement between the ball and the parts to which it is affixed. It is respectfully submitted that independent Claims 1, 18 and 34 are clearly patentable over Finn.

With respect to Claims 2-3, 10, 11, 20, 29, 32, 33, 35, 36, 43 and 44, since those claims are all dependent upon one of independent Claims 1, 18 or 34, and further limit those independent claims, it is respectfully submitted that those dependent claims are likewise patentable over Finn.

Claims 4-8, 15-17, 30, 37 and 38-41 stand rejected as obvious over Finn in view of Morris (U.S. Patent 3,560,060). This rejection is also respectfully traversed. With respect to Claims 4-8, those claims are dependent upon Claim 1 which, as demonstrated, are clearly patentable over Finn. The deficiencies of Finn are not cured by resort to the Morris patent. To begin with, Applicant questions Morris as even being relevant art since it discloses nothing more than a rod guide extending through production tubing, the rod guide having a non-metallic centralizer on it. In any event, Morris does not cure the infirmities of Finn as discussed above vis-à-vis Applicants' claims. Accordingly, it is respectfully submitted that since Claims 4-8, 15-17, 30, 37 and 38-41 are all dependent upon independent claims which have demonstrated to be patentable over Finn et al, those claims are likewise patentable over Finn in combination with Morris. It should be specifically noted, with respect to Claims 4 and 37 that the provision of flow ports as

allegedly taught by Morris does nothing to cure the infirmities of Finn as elaborated above.

With respect to Claims 5-8, 15, 30 and 38-41, the inclusion of grooves in Applicants' centralizer is for purposes of dealing with stresses while in Morris the grooves or flutes are for the purposes of providing a cutting or scraping action of paraffin off the inner surface of the projection tubing. Accordingly, one would have no motivation to resort to the structure of Morris either for the provision of water flow ports (Claims 4 and 37) or grooves (Claims 5-8, 15, 30 and 38-41). It is respectfully submitted that Claims 4-8, 15-17, 30, 37, 38-41 are patentable over Finn in view of Morris.

With particular respect to Claims 15-17 as being unpatentable over Finn in view of Morris, Claim 15 calls for the centralizer to have at least one annular groove shaped to limit substantially radially directed forces from being transmitted through the annular groove in the corresponding portion of the rigid construction centralizer as a result of an impact or hard contact between the receptacle and the ridged centralizer, the groove being selectively positioned within the rigid construction centralizer to thereby reduce an amount of stress created at a selected portion of the metallic pipe due to impact on the hard contact. Morris shows none of those features. The Morris reference discloses longitudinal extending grooves or flutes 24 – not annular grooves. Furthermore, it cannot possibly be argued that the flutes 24 of Morris are shaped to substantially limit radially directed forces from being transmitted through those flutes to the corresponding portion of the rigid construction centralizer as a result of an impact or hard contact between the receptacle, i.e., the tubing 6, and the centralizer, presumably body 11. Furthermore, the idea of a hard impact is totally foreign in the Morris structure since it is not intended that

the rod guide be subjected to such impacts especially in view of the fact that the body 11 is split longitudinally and is made of a plastic, i.e., polyurethane. In short, the Morris reference has no relevance at all to Claim 15 or claims dependent thereon, i.e., Claims 16 and 17.

Claim 9 stands rejected as unpatentable over Halkyard. Claim 9 is dependent upon Claim 1, which as demonstrated above, is clearly patentable over Halkyard. Claim 9 further limits Claim 1 and accordingly is likewise clearly patentable over Halkyard. In passing, Applicant would note that the insulative coating is for purposes of electrical isolation to prevent galvanic action and not for wear resistance.

Claims 12 and 14 stand rejected as unpatentable over Finn in view of Angman. Claim 12, as noted above, has been amended to recite that the centralizer is grippingly affixed to the upset portion to prevent relative movement between the centralizer and the upset portion. As noted above in discussing the infirmities of the Finn reference, the Finn structure necessarily depends upon relative movement between the ball wear insert 94 and the sleeve 108 to function in its intended manner. Accordingly, there would be absolutely no motivation and it would be contrary to the teachings of Finn to use a heat shrink procedure as set forth in Claim 12 to effectively immobilize relative movement between the ball wear insert 94 and the sleeve 108. The combination of Finn and Angman is simply unavailing to render Claim 12 obvious.

As for Claim 14, since that claim depends upon Claim 12 and further limits it, it is also clearly patentable over the combination of Finn and Angman.

Claim 13 stands rejected as obvious over Finn in view of Angman and further in view of Morris. That rejection is also respectfully traversed. As pointed out above,

Claim 12 is clearly patentable over the combination of Finn and Angman. Since Claim 13 further limits Claim 12 it is also likewise patentable over those references. The combination of those two references with Morris does nothing to rectify the infirmities of those two references vis-à-vis rendering Claim 12 unpatentable. Accordingly, Claim 13 is clearly patentable over the combination of Finn, Angman and Morris.

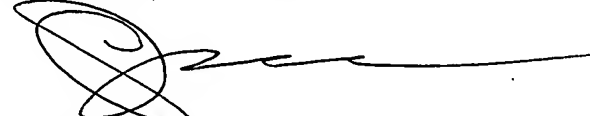
Claims 21-28 stand rejected as unpatentable over Finn. Claims 21-28 are all dependent upon Claim 18 which, as noted above, is clearly patentable over Finn. That being the case, and since Claims 21-28 further limit Claim 18, it is respectfully submitted that they are likewise clearly patentable over Finn.

Claims 31 and 42 stand rejected as obvious over Finn in view of Halkyard. The rejection is respectfully traversed. Claim 31 depends upon Claim 18 which, as demonstrated above is clearly patentable over either Finn or Halkyard. Accordingly, being dependent upon Claim 18, Claim 31 is likewise patentable over the combination of Finn and Halkyard. With respect to Claim 42, that claim is dependent upon Claim 34 which again has been demonstrated to be patentable over Finn and Halkyard. That being the case, and since Claim 42 further limits Claim 34, it is clear that Claim 42 is patentable over Finn in view of Halkyard.

Appl. No.: 10/689,472
Amendment Dated: August 18, 2006
Reply to Office Action of March 2, 2006

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims are in condition for allowance which is hereby earnestly solicited and respectfully requested.

Respectfully submitted,



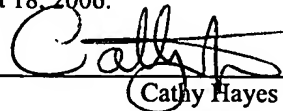
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Date: August 18, 2006

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